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Page 1 of 7

1652

TECH CENTER 1600/2900



1600

RAW SEQUENCE LISTING

DATE: 01/24/2002

PATENT APPLICATION: US/09/624,670

TIME: 14:24:55

Input Set : A:\6407usp2.txt

Output Set : N:\CRF3\01242002\I624670.raw

4 <110> APPLICANT: Abbott Laboratories
5 Mukerji, Pradip
6 Das, Tapas
7 Huang, Yung-Sheng
8 Parker-Barnes, Jennifer M.
9 Leonard, Amanda Eun-Yeong
10 Thurmond, Jennifer M.

12 <120> TITLE OF INVENTION: ELONGASE GENES AND USES THEREOF

15 <130> FILE REFERENCE: 6407.US.P2

17 <140> CURRENT APPLICATION NUMBER: 09/624,670

18 <141> CURRENT FILING DATE: 2000-07-24

20 <150> PRIOR APPLICATION NUMBER: US 09/379,095

21 <151> PRIOR FILING DATE: 1999-08-23

23 <150> PRIOR APPLICATION NUMBER: US 09/145,828

24 <151> PRIOR FILING DATE: 1998-09-02

26 <160> NUMBER OF SEQ ID NOS: 87

28 <170> SOFTWARE: FastSEQ for Windows Version 4.0

30 <210> SEQ ID NO: 1

31 <211> LENGTH: 954

32 <212> TYPE: DNA

33 <213> ORGANISM: Mortierella alpina

35 <400> SEQUENCE: 1

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38 gtcttccagg agggcgtcac gcctctctcg acccagagag aggtcgccat gtggactatc 180
39 acttacttgc tgcctatctt tgggtgtcgc cagatcatga agagccagga cgccttcaag 240
40 ctcaagcccc tcttcatcct ccacaacttc ctcttgacga tcgcgtccgg atcgtgttg 300
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42 tgcgacgacg gtgcctggac ccagcgctc gagctcctct actacctcaa ctacctggtc 420
43 aagtactggg agttggcga caccgtcttt ttggctctca agaagaagcc tcttgagttc 480
44 ctgcactact tccaccactc gatgaccatg gttctctgct ttgtccagct tggaggatac 540
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46 tactacatgc gctcgcgtgc cgggtgtgc atctgggtga agcagtactt gaccactctc 660
47 cagatcgtec agttcgttct tgacctcga ttcacttact tctgcgcta cacctacttc 720
48 gccttcaact acttccctg ggtcccaac gtgcgcaagt gcgcgggtac cgagggtgct 780
49 gctctctttg gctgcgact cctctccagc tatctcttgc tctttatcaa cttctaccgc 840
50 attacctaca atgccaaagg caaggcagcg aaggagcgtg gaagcaactt taccoccaag 900
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53 <210> SEQ ID NO: 2

54 <211> LENGTH: 957

55 <212> TYPE: DNA

56 <213> ORGANISM: Mortierella alpina

58 <400> SEQUENCE: 2

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CRF3 0124-1
D2C
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59 atggagtcga ttgcgccatt cctcccatca aagatgccgc aagatctggt tatggacctt      60
60 gccaccgcta tcggtgtccg ggccgcgccc tatgtcgatc ctctcgaggc cgcgctggtg      120
61 gccagagccg agaagtacat cccacgatt gtccatcaca cgcgtgggtt cctggtcgcg      180
62 gtggagtcgc ctttgcccg tgagctgccg ttgatgaacc cgttccacgt gctgttgatc      240
63 gtgctcgctt atttggtcac ggtctttgtg ggcattgcaga tcatgaagaa ctttgagcgg      300
64 ttcgaggtca agacgttttc gctcctgcac aacttttgtc tggctctgat cagcgcctac      360
65 atgtgcggtg ggatcctgta cgaggettat caggccaaat atggactgtt tgagaacgct      420
66 gctgatcata ccttcaaggg tottctctat gccaaagtga tctggtctct ctacttctcc      480
67 aagatcatgg agtttgtcga caccatgatc atggctctca agaagaacaa ccgccagatc      540
68 tcttctctgc acgtttacca ccacagctcc atcttcacca tctggtgggt ggtcaccttt      600
69 gttgcaccca acggtgaagc ctacttctct gctgcgttga actcgttcat ccatgtgatc      660
70 atgtacggt actacttctt gtcggccttg ggcttcaagc aggtgtcggt catcaagttc      720
71 tacatcacgc gctcgcagat gacacagttc tgcattgatg cggctccagtc ttcctgggac      780
72 atgtacgcca tgaaggtcct tggccgcccc ggataccctc tcttcacac ggctctgctt      840
73 tqgttctaca tgtggaccat gctcggcttc ttctacaact ttacagaaa gaacgccaag      900
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84 atatatattac taattgtatg gctgggacca aaatacatga ggaataaaca gccattctct      180
85 tgccggggga ttttagtggt gtataacctt ggactcacac tgctgtctct gtatatgttc      240
86 tgtgagttag taacaggagt atgggaaggc aaatacaact tcttctgtca gggcacacgc      300
87 accgcaggag aatcagatat gaagattatc cgtgtcctct ggtggtacta cttctccaaa      360
88 ctcatagaat ttatggacac tttcttcttc atctcgcca agaacaacca ccagatcacg      420
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90 gtccctgcg gccactctta ttttggtgcc acacttaata gcttcatcca cgtcctcatg      540
91 tactcttact atggtttgtc gtcagtcctt tccatgcgtc catacctctg gtggaagaag      600
92 tacatcactc aggggcagct gcttcagttt gtgtgcacaa tcatccagac cagctgcggg      660
93 gtcacttgge cgtgcacatt cctcttgggt tgggtgtatt tccagattgg atacattatt      720
94 tccctgattg ctctcttcac aaacttctac attcagacct acaacaagaa aggggcctcc      780
95 cgaaggaaag accacctgaa ggaccaccag aatgggtccg tggctgctgt gaatggacac      840
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97 agtcaaagaa ttga
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100 <211> LENGTH: 867
101 <212> TYPE: DNA
102 <213> ORGANISM: Caenorhabditis elegans
104 <400> SEQUENCE: 4
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106 gtggctattg ctactcatgg gccaaagaat tccctgacg cagaaggctg caagttcttt      120
107 gctgatcact ttgatgttac tattcaggct tcaatctgt acatggctgt tgtgttcgga      180
108 acaaaatggt tcatgcgtaa tegtcaacca ttccaattga ctattccact caacatctgg      240
109 aatttcatcc tcgcgcatt ttccatcgca ggagctgtca aaatgacccc agagttcttt      300
110 ggaaccattg ccaacaaagg aattgtcgca tctactgca aagtgtttga ttacacgaaa      360
111 ggagagaatg gatactgggt gtggctcttc atggcttcca aacttttcca acttggtgac      420

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112 accatcttct tgggttctcg taaacgtcca ctcatgttcc ttacttggtg tcaccatatt      480
113 ctaccatga tctacgcctg gtactctcat ccattgaccc caggattcaa cagatacgya      540
114 atttatctta actttgtcgt ccacgccttc atgtactctt actacttcc tgcctcgatg      600
115 aagattcgcg tgccaggatt catcgcccaa gctatcacat ctcttcaaat cgttcaattc      660
116 atcatctctt gcgcggttct tgcctcatct gggtatctca tgcacttcac caatgccaac      720
117 tgtgatttcg agccatcagt attcaagctc gcagttttca tggacacaac atacttggtc      780
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119 gcagtgccta agaagaagaa caactaa                                     867
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128 ccacgagatt ctogagttcg cgggtggttc ctgctggact ctaccttcc cacttctatc      120
129 ctaccatca cgtacctgct ctogatatgg ctgggtaaca agtacatgaa gaacaggcct      180
130 gctctgtctc tcaggggcat cctcaccttg tataacctcg caatcacact tctttctgcg      240
131 tatatgctgg tggagctcat cctctccagc tgggaaggag gttacaactt gcagtgtcag      300
132 aatctcgaca gtgcaggaga aggtgatgtc cgggtagcca aggtcttgtg gtggtactac      360
133 ttctccaaac tagtggagtt cctggacacg attttctttg ttctacgaaa aaagaccaat      420
134 cagatcacct tcttctatgt ctatccaccac gcgtccatgt tcaacatctg gtggtgtgtt      480
135 ttgaactgga taccttgttg tcaaagcttc tttggacca cctgaacag ctttatccac      540
136 attctcatgt actcctacta cggcctgtct gtgttccgct ccatgcacaa gtacctttgg      600
137 tggagaagat acctcacaca ggctcagctg gtgcagttcg tactcaccat cagcacacg      660
138 ctgagtgcg tggatgaagcc ctgtggttcc cctttggct gtctcatctt ccagtcttcc      720
139 tatatgatga cgttggtcat cctgttctta aacttctata ttacagata ccggaanaag      780
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151 atttacttac tcattgtatg gctgggacca aaatacatga agaaccggca gccgttctct      180
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156 gtgtccatg tctaccacca cgtaccatg ctcaacatct ggtggtttgt gatgaactgg      480
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158 tactcgtact atggtctgtc ctccatcccg tccatgcgtc cctacctctg gtggaaaaag      600
159 tacatcactc aagggcagct ggtccagttt gtgtgacaa tcatccagac gacctgcggg      660
160 gtcttctggc catgctcctt cctctcggg tggctgttct tccagattgg atacatgatt      720
161 tccctgattg ctctcttcac aaacttctac attcagactt acaacaagaa aggggcctct      780
162 cggaggaaaag accacctgaa gggccaccag aacgggtctg tggccgctg caacggacac      840
163 accaacagct tcccttccct ggaaaacagc gtgaagccca ggaagcagcg aaaggattga      900
165 <210> SEQ ID NO: 7

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166 <211> LENGTH: 83
167 <212> TYPE: PRT
168 <213> ORGANISM: Jojoba KCS
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172 1 5 10 15
173 Leu Gly Tyr His Tyr Leu Ile Ser Asn Ala Leu Phe Leu Val Phe Ile
174 20 25 30
175 Pro Leu Leu Gly Leu Ala Ser Ala His Leu Ser Ser Phe Ser Ala His
176 35 40 45
177 Asp Leu Ser Leu Leu Phe Asp Leu Leu Arg Arg Asn Leu Leu Pro Val
178 50 55 60
179 Val Val Cys Ser Phe Leu Phe Val Leu Leu Ala Thr Leu His Phe Leu
180 65 70 75 80
181 Thr Arg Pro
184 <210> SEQ ID NO: 8
185 <211> LENGTH: 80
186 <212> TYPE: PRT
187 <213> ORGANISM: Saccharomyces cerevisiae
189 <400> SEQUENCE: 8
190 Ser Thr Leu Pro Pro Val Leu Tyr Ala Ile Thr Ala Tyr Tyr Val Ile
191 1 5 10 15
192 Ile Phe Gly Gly Arg Phe Leu Leu Ser Lys Ser Lys Pro Phe Lys Leu
193 20 25 30
194 Asn Gly Leu Phe Gln Leu His Asn Leu Val Leu Thr Ser Leu Ser Leu
195 35 40 45
196 Thr Leu Leu Leu Met Val Glu Gln Leu Val Pro Ile Ile Val Gln
197 50 55 60
198 His Gly Leu Tyr Phe Ala Ile Cys Asn Ile Gly Ala Trp Thr Gln Pro
199 65 70 75 80
201 <210> SEQ ID NO: 9
202 <211> LENGTH: 240
203 <212> TYPE: DNA
204 <213> ORGANISM: Saccharomyces cerevisiae
206 <400> SEQUENCE: 9
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209 ctctcctcca cctcctcttc cctcaccctc ctctcctcca tggctgagca gctcgtcccc 180
210 atcatcgtcc agcacggtct ctacttcgcc atctgcaaca tcggtgcctg gaccagcccc 240
212 <210> SEQ ID NO: 10
213 <211> LENGTH: 33
214 <212> TYPE: DNA
215 <213> ORGANISM: Mortierella alpina
217 <400> SEQUENCE: 10
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220 <210> SEQ ID NO: 11
221 <211> LENGTH: 49
222 <212> TYPE: DNA
223 <213> ORGANISM: Mortierella alpina

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225 <400> SEQUENCE: 11
 226 gaattcaggc atctcatgga tccgccatgg ccgccgcaat cttggacaa
 228 <210> SEQ ID NO: 12
 229 <211> LENGTH: 317
 230 <212> TYPE: PRT
 231 <213> ORGANISM: Mortierella alpina
 233 <400> SEQUENCE: 12
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 236 Phe Gly Ile Lys Leu Asp Thr Tyr Phe Ala Gln Ala Tyr Glu Leu Val
 237 20 25 30
 238 Thr Gly Lys Ser Ile Asp Ser Phe Val Phe Gln Glu Gly Val Thr Pro
 239 35 40 45
 240 Leu Ser Thr Gln Arg Glu Val Ala Met Trp Thr Ile Thr Tyr Phe Val
 241 50 55 60
 242 Val Ile Phe Gly Gly Arg Gln Ile Met Lys Ser Gln Asp Ala Phe Lys
 243 65 70 75 80
 244 Leu Lys Pro Leu Phe Ile Leu His Asn Phe Leu Leu Thr Ile Ala Ser
 245 85 90 95
 246 Gly Ser Leu Leu Leu Leu Phe Ile Glu Asn Leu Val Pro Ile Leu Ala
 247 100 105 110
 248 Arg Asn Gly Leu Phe Tyr Ala Ile Cys Asp Asp Gly Ala Trp Thr Gln
 249 115 120 125
 250 Arg Leu Glu Leu Leu Tyr Tyr Leu Asn Tyr Leu Val Lys Tyr Trp Glu
 251 130 135 140
 252 Leu Ala Asp Thr Val Phe Leu Val Leu Lys Lys Lys Pro Leu Glu Phe
 253 145 150 155 160
 254 Leu His Tyr Phe His His Ser Met Thr Met Val Leu Cys Phe Val Gln
 255 165 170 175
 256 Leu Gly Gly Tyr Thr Ser Val Ser Trp Val Pro Ile Thr Leu Asn Leu
 257 180 185 190
 258 Thr Val His Val Phe Met Tyr Tyr Tyr Tyr Met Arg Ser Ala Ala Gly
 259 195 200 205
 260 Val Arg Ile Trp Trp Lys Gln Tyr Leu Thr Thr Leu Gln Ile Val Gln
 261 210 215 220
 262 Phe Val Leu Asp Leu Gly Phe Ile Tyr Phe Cys Ala Tyr Thr Tyr Phe
 263 225 230 235 240
 264 Ala Phe Thr Tyr Phe Pro Trp Ala Pro Asn Val Gly Lys Cys Ala Gly
 265 245 250 255
 266 Thr Glu Gly Ala Ala Leu Phe Gly Cys Gly Leu Leu Ser Ser Tyr Leu
 267 260 265 270
 268 Leu Leu Phe Ile Asn Phe Tyr Arg Ile Thr Tyr Asn Ala Lys Ala Lys
 269 275 280 285
 270 Ala Ala Lys Glu Arg Gly Ser Asn Phe Thr Pro Lys Thr Val Lys Ser
 271 290 295 300
 272 Gly Gly Ser Pro Lys Lys Pro Ser Lys Ser Lys His Ile
 273 305 310 315
 275 <210> SEQ ID NO: 13
 276 <211> LENGTH: 347

49

VERIFICATION SUMMARY

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L:588 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:678 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23
L:730 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:836 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27
L:886 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28
L:1089 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32
L:1184 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34
L:1277 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36
L:1612 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46
L:2040 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:57
L:2129 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59